

Title (en)  
CHIRAL DOPING AGENTS FOR LIQUID CRYSTALS

Publication  
**EP 0415220 A3 19910918 (DE)**

Application  
**EP 90115897 A 19900820**

Priority  
CH 316989 A 19890901

Abstract (en)  
[origin: US5093027A] Optically active dopants of the formula <IMAGE> I wherein A represents an optically active group selected from 1,1'-binaphthyl-2,2'-diyl, -CHR1-CHR2- or -CH(COOR3)-CH(COOR4)-; Z denotes a group -(CH2)4-, -O(CH2)3- or the trans form of -OCH2-CH=CH-; R1 is hydrogen, methyl, phenyl or cyclohexyl; R2 is methyl, phenyl or cyclohexyl; R3 and R4 denote alkyl; Y stands for -CO- or -CH2-; ring B represents 1,4-phenylene or trans-1,4-cyclohexylene; and R is hydrogen, alkyl, alkoxy or cyano, liquid crystalline mixtures which contain such dopants and their use for optical and electro-optical purposes.

IPC 1-7  
**C07C 69/78**; **C09K 19/30**; **C09K 19/32**

IPC 8 full level  
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Citation (search report)  
• [A] DE 3633967 A1 19870820 - HOECHST AG [DE]  
• [A] DE 3534780 A1 19870402 - HOECHST AG [DE]  
• [A] DE 3333677 A1 19850404 - MERCK PATENT GMBH [DE]

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**EP 0415220 A2 19910306**; **EP 0415220 A3 19910918**; **EP 0415220 B1 19940202**; DE 59004491 D1 19940317; HK 206496 A 19961122; JP 2740347 B2 19980415; JP H0393741 A 19910418; KR 100197449 B1 19990615; KR 910006204 A 19910427; US 5093027 A 19920303; US 5411676 A 19950502

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